

## Interpreting Blood Results in Horses: Red blood cells



New Offers:

Equine health profile: \$66.50 (Includes veterinary interpretation/phone consultation)

Equine health profile and Examination: \$117.00 (Includes blood collection; veterinary examination and interpretation)

Same Day Service

TOWNSVILLE VETERINARY CLINIC AND NORTH QUEENSLAND SPECIALIST EQUINE SERVICE

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Phone: 07 47790233 Fax: 07 47791661 E-mail: brad@townsvillevetclinic.com.au We commonly test our horses' blood to look for disease, determine their level of fitness and predict their performance. Over the years many studies have tried to establish a set of criteria by which to predict racing performance in horses. However, while there is little firm data that enables us to accurately predict a winner, there are some things we can do to ensure everything is as good as it can be. Young horses will usually achieve adult iron levels by the time they are yearlings and the PCV of two year olds in training will usually increase by about 4% per month for the first 5 months, after which it will generally remain stable. Measuring the red blood cell count is generally considered to be paramount. However, a horse at rest will have 50% of his red blood cells lying in wait within his spleen. These red cells are then released under the effect of adrenalin when excited or exercising. So, while measuring red cell counts at rest is useful it doesn't tell you the total number of red cells available during exercise. In addition there can be up to 20% variation in a horse's red cell count over a single week. For these reasons haemaglobin (Hb), the iron-protein complex in red cells responsible for carrying oxygen, is perhaps best measured. Generally a horse is considered anaemic if the packed cell volume (PCV) is less than 35% or less than 2 standard deviation units below that horse's average count. If you are concerned your horse is anaemic then you are best to collect blood within a few minutes of completing 800-1000 metres of three-quarter pace work. Post exercise bloods may be more reliable and some studies have shown a relationship between higher haemoglobin levels and performance. Ideally a fit healthy horse should have a PCV of 60-65% and Hb 200-230 of gm/L after exercise. Once collected blood should be analysed within 6 hours to prevent abnormal results. Storing blood for greater than 12 hours will result in lower red cell counts, lower glucose levels and abnormal levels of muscle enzymes (AST) and electrolytes.

The Townsville Veterinary Clinic and North Queensland Specialist Equine Service would like to offer the following services in an effort to support local horse trainers and owners in interpreting blood results and maximising performance of their horses. An **Equine general health profile** including veterinary interpretation / phone consultation and an **Equine general health profile and examination** which includes veterinary examination of the horse, blood collection and veterinary interpretation / phone consultation. For same day service blood should be collected in purple top and red top tubes, refrigerated and submitted to the clinic by midday.